

10/563221

IAP15 Rec'd PCT/PTO 04 JAN 2006

Customer No. 22,852
Attorney Docket No. 03447.0016

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Armelle PHALIPON et al.

Application No.: **Not Yet Assigned**

Filed: **January 4, 2006**

National Stage of International Application No.
PCT/IB2004/002657 under 35 U.S.C. 371, for
GLYCOCONJUGATES AND THEIR USE AS
POTENTIAL VACCINES AGAINST
INFECTION BY SHIGELLA FLEXNERI

Group Art Unit: **Not Yet Assigned**

Examiner: **Not Yet Assigned**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Pursuant to 37 C.F.R. §§1.56 and 1.97(b), applicants bring to the Examiner's attention the documents listed on attached Form PTO/SB/08 and cited in the international search report. Copies of the listed documents are attached. Applicants respectfully request that the Examiner consider the documents listed on attached Form PTO/SB/08 and indicate that they were considered by making an appropriate notation on this form. This Information Disclosure Statement is being filed with the above-referenced application.

The following is listed on the accompanying PTO/SB/08 and is in a non-English language:

1. YUN, M., "Analysis of Biological Characteristics of Monoclonal Antibodies to *Shigella flexneri* 2a O-Side Chain of LPS," Chinese Journal of Microbiology and Immunology, Beijing, Vol. 12, No. 5, pp. 322-324, (1992).

In lieu of a statement of relevance or the translation of the non-English document, enclosed is an English-language international search report from the European Patent Office in the PCT international application, from which this national phase U.S. application is derived, citing this document and setting forth the relevance thereof.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and applicants determine that the cited documents do not constitute "prior art" under United States law, applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents. Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

IAP15 Rec'd PCT/PTO 04 JAN 2006

Customer No. 22,852

Attorney Docket No. 03447.0016

If there is any fee due in connection with the filing of this Statement, please
charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: January 4, 2006

By: 

Ernest F. Chapman
Reg. No. 25,961

Enclosures
EFC/FPD/sci

IDS Form PTO/SB/08: Substitute for form 1449A/PTO				Complete if Known Application Number Not Yet Assigned 10/563221 Filing Date January 4, 2006 First Named Inventor Armelle PHALIPON et al. Art Unit Not Yet Assigned Examiner Name Not Yet Assigned Attorney Docket Number 03447.0016	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)					
Sheet	1	of	2		

U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS					
Examiner Initials	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

Note: Copies of the U.S. Patent Documents are not Required in IDS filed after October 21, 2004

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No. ¹	Foreign Patent Document Country Code ² Number ³ Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation ⁶
/MN/		WO 99/03871	01-28-1999	POZSGAY et al.		
		WO 02/080964 A1	10-17-2002	FOURNIER et al.		
		WO 99/58679	11-18-1999	BONNEFOY et al.		
		WO 99/32645	07-01-1999	STINSON et al.		
		WO 03/100033 A2	12-04-2003	VIOLETTE et al.		
		WO 2004/063335 A2	07-29-2004	WATKINS et al.		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation ⁶
/MN/		POLOTSKY, V. Y. et al., "Comparison of Conjugates Composed of Lipopolysaccharide from <i>Shigella flexneri</i> Type 2a Detoxified by Two Methods and Bound to Tetanus Toxoid," Infection and Immunity, Vol. 62, No. 1, pp. 210-214, (January 1994).	
		PASSWELL, J. H. et al., "Safety and Immunogenicity of Improved <i>Shigella</i> O-Specific Polysaccharide-Protein Conjugate Vaccines in Adults in Israel," Infection and Immunity, Vol. 69, No. 3, pp. 1351-1357, (March 2001).	
		PAVLIKOVA, D. et al., "Treatment with Succinic Anhydride Improves the Immunogenicity of <i>Shigella flexneri</i> Type 2a O-Specific Polysaccharide-Protein Conjugates in Mice," Infection and Immunity, Vol. 67, No. 10, pp. 5528-5529, (October 1999).	
		TAYLOR, D. N. et al., "Synthesis, Characterization, and Clinical Evaluation of Conjugate Vaccines Composed of the O-Specific Polysaccharides of <i>Shigella Dysenteriae</i> Type 1, <i>Shigella flexneri</i> Type 2a, and <i>Shigella sonnei</i> (<i>Plesiomonas shigelloides</i>) Bound to Bacterial Toxoids," Infection and Immunity, Vol. 61, No. 9, pp. 3678-3687, (September 1993).	
		CARLIN, N. I. A. et al., "Monoclonal Antibodies Specific for O-Antigenic Polysaccharides of <i>Shigella flexneri</i> : Clones Binding to II, II:3,4 and 7,8 Epitopes," Journal of Clinical Microbiology, Vol. 18, No. 5, pp. 1183-1189, (November 1983).	

Examiner Signature	Date Considered
--------------------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

IDS Form PTO/SB/08: Substitute for form 1449/PTO				Complete if Known Application Number Not Yet Assigned Filing Date January 4, 2006 First Named Inventor Armelle PHALIPON et al. Art Unit Not Yet Assigned Examiner Name Not Yet Assigned Attorney Docket Number 03447.0016	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)					
Sheet	2	of	2		

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			Translation ^a
/MN/		YUN, M., "Analysis of Biological Characteristics of Monoclonal Antibodies to <i>Shigella flexneri</i> 2a O-Side Chain of LPS," Chinese Journal of Microbiology and Immunology, Beijing, Vol. 12, No. 5, pp. 322-324, (1992).			NO
		POZSGAY, V. et al., "Protein Conjugates of Synthetic Saccharides Elicit Higher Levels of Serum IgG Lipopolysaccharide Antibodies in Mice Than Do Those of the O-Specific Polysaccharide from <i>Shigella dysenteriae</i> Type 1," Proc. Natl. Acad. Sci. USA, Vol. 96, pp. 5194-5197, (April 1999).			
		POZSGAY, V., "Synthesis of Glycoconjugate Vaccines Against <i>Shigella dysenteriae</i> Type 1," J. Org. Chem., Vol. 63, pp. 5983-5999, (1998).			
		CHU, C. et al., "Preparation, Characterization, and Immunogenicity of Conjugates Composed of the O-Specific Polysaccharide of <i>Shigella dysenteriae</i> Type 1 (Shiga's Bacillus) Bound to Tetanus Toxoid," Infection and Immunity, Vol. 59, No. 12, pp. 4450-4458, (December 1991).			
		MULARD, L. A. et al., "Synthesis of the Methyl Glycosides of A Di- and Two Trisaccharide Fragments Specific for the <i>Shigella flexneri</i> Serotype 2a O-Antigen", J. Carbohydrate Chemistry, Vol. 19, No. 7, pp. 849-877, (2000).			
		COSTACHEL, C. et al., "Linear Synthesis of The Methyl Glycosides of Tetra- and Pentasaccharide Fragments Specific for The <i>Shigella flexneri</i> Serotype 2a O-Antigen", J. Carbohydrate Chemistry, Vol. 19, No. 9, pp. 1131-1150, (2000).			
		SEGAT-DIOURY, F. et al., "Convergent Synthesis of the Methyl Glycosides of A Tetra- and a Pentasaccharide Fragment of the <i>Shigella flexneri</i> Serotype 2a O-Specific Polysaccharide," Tetrahedron: Asymmetry, Vol. 13, pp. 2211-2222, (2002).			
		BÉLOT, F. et al., "Synthesis of the Methyl Glycoside of a Branched Octasaccharide Fragment Specific for the <i>Shigella flexneri</i> Serotype 2a O-Antigen," Tetrahedron Letters, Vol. 43, pp. 8215-8218, (2002).			
		PHALIPON, A. et al., "Shigellosis: Innate Mechanisms of Inflammatory Destruction of the Intestinal Epithelium, Adaptive Immune Response, and Vaccine Development," Critical Review in Immunology, Vol. 23, No. 5 & 6, pp. 371-401, (2003).			
		CLÉMENT, M. J. et al., "Conformational Studies of the O-Specific Polysaccharide of <i>Shigella flexneri</i> 5a and of Four Related Synthetic Pentasaccharide Fragments Using NMR and Molecular Modeling," The Journal of Biology Chemistry, Vol. 278, No. 48, Issue of November 28, pp. 47928-47936, (2003).			
		BÉLOT, F. et al., "Blockwise Approach to Fragments of the O-Specific Polysaccharide of <i>Shigella flexneri</i> Serotype 2a: Convergent Synthesis of a Decasaccharide Representative of a Dimer of the Branched Repeating Unit," J. Org. Chem., Vol. 69, pp. 1060-1074, (2004).			
		WRIGHT, K. et al., "Preparation of Synthetic Glycoconjugates as Potential Vaccines Against <i>Shigella flexneri</i> Serotype 2a Disease," Org. Biomol. Chem., Vol. 2, pp. 1518-1527, (2004).			
		ISLAM, M. S. et al., "Production and Characterization of Monoclonal Antibodies with Diagnostic Potential Against <i>Shigella flexneri</i> ," J. Clin. Lab. Immunol., Vol. 29, pp. 199-206, (1989).			
		HARTMAN, A. B. et al., "Specificity of Monoclonal Antibodies Elicited by Mucosal Infection of BALB/c Mice with Virulent <i>Shigella flexneri</i> 2a," Clinical and Diagnostic Laboratory Immunology, Vol. 3, No. 5, pp. 584-589, (September 1996).			
		KIPRIYANOV, S. M. et al., "Generation and Production of Engineered Antibodies," Molecular Biotechnology, Vol. 26, pp. 39-60, (2004).			

Examiner Signature	/Mark Navarro/	Date Considered	2/13/2011
--------------------	----------------	-----------------	-----------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.